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(54) Title: PRODUCTION OF ANTIBODIES IN TRANSGENIC PLASTIDS

(57) **Abstract:** This invention provides compositions and methods for the transformation of plastids of plant cells with multiple genes, and proper association or assembly of multimeric proteins that are heterologous to the plastids of plant cells. A plasmid construct encoding all of the individual polypeptide components of the multimeric protein is provided. Stable integration of the heterologous coding sequences into the plastid genome of the target plant is accomplished through homologous recombination. The present invention achieves assembly of immunoglobulin heavy and light chains, with covalent bonding between the chains, into immunologically active immunoglobulins in the chloroplast.